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14. ABSTRACT The U.S. Navy should pursue a sea based AOC capability as an operationally significant concept that greatly enhances the Navy's position in joint operations. Achieving this capability would posture naval forces to more closely fulfill the requirement mandated by the National Military Strategy to conduct military operations that dominate the full spectrum of conflict. Though previously limited by technological constraints, undeniable trends across military transformation efforts point to its future relevance and application to the Joint Force Commander. The uncertainty of future conflicts and the growing abilities of our adversaries reinforce the need to harness the operational significance of an afloat AOC. In all manner of conflict, from MOOTW to major operations, this unique capability provides the JFC greater flexibility to respond to contingencies on short notice with an integrated, more lethal joint force. More importantly, should the proliferation of theatre ballistic missile technology worsen, an AOC capable naval strike group most likely possesses the closest solution to this dangerous threat. Finally, rather than redefine naval command and control of air operations as simply an enabler to the JFACC, the Navy should expand this definition to encompass a wider more relevant purpose, to provide flexible joint airpower from the sea in support of the Joint Force Commander.					
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Sea Based Air Operations Center

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A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract

The U.S. Navy should pursue a sea based AOC capability as an operationally significant concept that greatly enhances the Navy's position in joint operations. Achieving this capability would posture naval forces to more closely fulfill the requirement mandated by the National Military Strategy to conduct military operations that dominate the full spectrum of conflict. Though previously limited by technological constraints, undeniable trends across military transformation efforts point to its future relevance and application to the Joint Force Commander.

The uncertainty of future conflicts and the growing abilities of our adversaries reinforce the need to harness the operational significance of an afloat AOC. In all manner of conflict, from MOOTW to major operations, this unique capability provides the JFC greater flexibility to respond to contingencies on short notice with an integrated, more lethal joint force. More importantly, should the proliferation of theatre ballistic missile technology worsen, an AOC capable naval strike group most likely possesses the closest solution to this dangerous threat. Finally, rather than redefine naval command and control of air operations as simply an enabler to the JFACC, the Navy should expand this definition to encompass a wider more relevant purpose, to provide flexible joint airpower from the sea in support of the Joint Force Commander.

Introduction

For students of joint operations who entered service after Desert Storm, the Joint Force Air Component Commander (JFACC) is synonymous with the Air Force, just as the Joint Force Maritime Component Commander (JFMCC) is synonymous with the Navy. Non-aviation affiliated officers may regard United States Air Force (USAF) command of the air war an inherent responsibility simply based on service affiliation and that Naval aviation assets, due to their comparatively smaller numbers, certainly contribute to the JFACC fight, but owe their allegiance to the JFMCC given their sea based nature.

Recently, a SECOND FLEET message stated that, “the USN has changed its perspective on command and control of air operations...operations involving CSG/ESG should be viewed as joint operations tied to an air operations center ashore with reachback to supporting organizations.”¹ One of the listed areas of discussion included, “refocus[ing] navy construct from JFACC afloat to JFMCC with an air command and control capability.”²

To shed light on these first glance assumptions, some key words and phrases from the above quoted message warranted investigation – air operations center (AOC), reachback, and air command and control capability. This investigation revealed the not so distant conception of the JFACC model and the very recent evolution of the AOC.

During the interwar years between Desert Storm and Operation Iraqi Freedom, information sharing technology has transformed air command and control methods, allowing operational planners to collaborate across global networks vice within a local planning cells. While investigating the evolution of the AOC and its central position in air command and

control, a few simple assumptions helped frame the author's "bridge wing" view of otherwise foreign waters:

- 1) The JFACC is a person not an organization
- 2) The AOC is the organization that supports the JFACC in executing his responsibilities
- 3) Theatre Battle Management Core Systems (TBMCS) is the overarching network system that supports the AOC. It ties together numerous USAF legacy systems to automate air campaign planning, link remote AOCs and manage the air war
- 4) With respect to command and control, particularly air operations, joint doctrine is akin to the navigation "rules of the road" in that it is purposely vague to allow its application to any scenario – and with good reason.

While these assumptions may be debatable to some, they nevertheless forced a reconsideration of the naval air command and control concept captured in the SECOND FLEET message. While some may agree that CSG/ESG operations should be linked to an AOC ashore to serve as a joint enabler to the JFACC, others may also assert that the JFMCC should retain a command and control capability. More explicitly, this capability should be developed to increase the joint nature of maritime warfare. However, some might also argue that the organizational and technological momentum that gave birth to the AOC, combined with the expeditionary nature of joint doctrine points to retaining the posture that a JFACC can operate from an afloat platform.

To satisfy the requirement to conduct joint operations across the spectrum of conflict, the Navy needs to establish an afloat AOC capability that serves the Joint Force Commander (JFC) or Joint Task Force Commander (CJTF) within either the JFACC or JFMCC structure.

This sea based AOC would effectively extend the operational reach of the JFACC by extending collaborative planning from standing AOCs forward to a Carrier Strike Group (CSG) or Expeditionary Strike Group (ESG). For the JFMCC, the sea based AOC would increase the operational level impact of the CSG, ESG, and the composite Expeditionary Strike Force (CSG plus ESG) by integrating joint air assets in the maritime domain. Finally, the sea based AOC would enhance the JFC to provide scaleable and rapid response options truly integrated in both planning and execution.

Evolution of the Air Operations Center

Born out of necessity in the years following Desert Storm, the Joint AOC (JAOC) emerged as the primary operational organization to conduct air campaign planning. Replacing the 1991 model of the JFACC in which the JFACC described both the commander and the location of air planning, today's JAOC eliminates the problem of shared situational awareness being a function of physical collocation.³ Air Force experimentation since the mid-1990s has sought to simplify centralized air planning while allowing for de-centralized execution.

Additionally, a series of joint Air Force Experimental Exercises in 1998, 1999, 2000, 2002 and 2004 tested various capabilities to increase the capability of a forward AOC to plan and execute the air war under the concept of distributed collaborative operations. By leveraging technology, the Air Force foresaw savings in money, reduction in mobility assets and reduction in deployment times. For example, JEFX 99 utilized an operations support center in Langley, Virginia that could generate an Integrated Tasking Order (synonymous with ATO) while the forward AOC in Hurlburt Field, Florida would execute it. As one Air Force officer explained, "the key to being integrated while distributed is what we call the

collaborative tools.”⁴ Also tested in JEFX 99 was the experimental Enroute Expeditionary Operations Center (EEOC), a palletized planning cell that can be deployed and operated from a KC-135R tanker or on the ground. This EEOC conducted initial strike planning for Air Expeditionary Force (AEF) during the long transit times from CONUS with the intent of allowing the AEF to execute strikes within 72 hours of the execute order.⁵ In JEFX 2000, the Air Forces successfully demonstrated the netting of external surveillance assets within the AOC in order to respond to time critical targets. Again, using reach back technology, a broad family of sensors conducted continuous surveillance over the operating area and detected a valid time critical target immediately accessible by AOC watchstanders, who subsequently planned, assigned and executed an engagement using weapons across all services.

Following JEFX 2000, the associated software and hardware systems associated with the AOC, Theatre Battle Management Core Systems (TBMCS), officially became recognized as a weapons system, which released the appropriate level of funding for the fielding and life cycle management of the system⁶. These JEFX exercises reaped invaluable benefits including the reduction of JAOC manning from 750 personnel to 250 and the reduction of response time for time critical target from hours to just a few minutes. Further reductions in manning and response time remain feasible. For instance, the Air Force hopes to further decrease manning in the JAOC to as little as 125.

The Air Force’s future vision of the AOC incorporates space operations and also links the standing AOCs worldwide. This Air and Space Operations Center would operate around the clock and provide the JFACC a method to employ and defend space assets, including GPS satellites, and provide a common operating picture that tracks both targets and assets

across theatres.⁷ By 2012, the Air Force hopes to link all airborne sensors,⁸ citing intelligence, surveillance and reconnaissance (ISR) capabilities as a critical enabler to future AOC operations. The Navy is already taking steps to interface with the AOC portals; however, future experimentation should not stop short of allowing a fully functional AOC being fielded on today's carriers or onboard tomorrow's sea basing platforms.

Joint Doctrine in Theory and Practice

Joint doctrine fully supports the ability of JFACC to operate afloat despite the fact that this capability in practical terms does not exist. Clearly an inherent danger exists that permits hollow doctrine without supporting capability, but in the case of command and control of air power, it is the method of alternative control that is questionable while the joint doctrine for air operations remains unchanged. More specifically, joint doctrine that allows for the hosting of a JFACC from an afloat AOC does not impede upon the planning and execution of the air campaign, but does allow for an alternative method of control. Joint Pub 3-0 states, "JFCs can operate from a headquarters platform at sea. Depending on the nature of joint operations, a naval commander can function as a JFC or serve as a JFACC while the operation is primarily maritime, and shift that command ashore if the operation shifts landward in accordance with the JFC's concept of operations."⁹ Joint Pub 3-56.1 outlines the considerations for a JFACC afloat:

- Maritime forces provide the preponderance of air capability
- Land-based facilities or significant infrastructure does not exist
- A secure land-based area is not available
- Ground forces are forced to withdraw¹⁰

In contrast, the JFACC should be stationed ashore for "large scale joint air operations" where superior logistical, communications and infrastructure typically exists.¹¹

JP3-56.1 also describes the two methods of transition between JFACC AOCs as either planned or unplanned. In addressing the issue of an AOC as a vulnerability, joint doctrine supports alternative options, "...the JFC should pre-designate alternates (both inter and intra components), and establish preplanned responses/options to the temporary or permanent loss of JFACC capability."¹² Doctrinal language states the case for redundancy in command and control of the AOC and JFACC responsibilities. Here, a sea based AOC would not supplant the role of the JFACC, but instead provides a level of redundancy or an option for primary execution should conditions not yet support a JFACC ashore.

Another area in which doctrine falls short of practicality involves the staffing of the JFACC. Joint doctrine states, "...the composition of the joint staff normally reflects the composition of the joint force to ensure those responsible for employing joint forces have thorough knowledge of joint force capabilities, needs and limitations."¹³ More specifically, "for each operation, the nucleus of the JFACC staff should be trained in JFACC operations and be representative of the joint force."¹⁴ The current JFACC manning model incorporates component liaison officers to represent their specific component's (i.e. NALE is naval and amphibious liaison element) and resolve issues as appropriate. The Air Force model, though proven effective, falls short of integrating joint staff officers and merely provides a conduit for communication. Liaison elements who merely step into such a cohesive organization will undoubtedly have trouble assessing what their "access" to the JFACC is worth or how best to use it. Additionally, the amount of parallel planning and level of automation precludes the liaison element from being in all places in the planning cycle where the components interests may be considered. The Navy is already correcting this shortage of resident JFACC expertise by obtaining specialized billets for officers trained in the Air Force JFACC curriculum.

Hopefully, these officers will be assigned regular positions in the AOC to more fully integrate into the process. The Navy will benefit tremendously from this corps of air planners as the cumulative experiences build up and service specific doctrines align or become more transparent. “[I]t is a place for polished professionals, it is not a pickup game.”¹⁵

Sea Based AOC Concept of Capabilities

As an operational concept, the sea based AOC does not break any new ground. As stated earlier, joint doctrine theorizes that a JFACC or JTF can operate from the sea; however, physical limits and space and technology have not yet bridged the gap between theory and practice. Therefore, doctrinal imperative for retaining this ability further support the argument that further investment should be made towards a sea based AOC. A fully functional sea based AOC creates opportunities for the JFC/CJTF to plan and execute joint operations with greater lethality and integration across the spectrum of conflict. Using the same organizational model that transformed land based AOCs into highly effective command and control organizations, an afloat AOC will also improve the JFC’s command and control in remote regions beyond the mature infrastructure of these fixed AOCs. The JFC/CJTF gains an operational asset qualitatively more flexible than a standard CSG or ESG, specifically with respect to the following areas:

- Greater response options in conducting forcible entry in anti- access crisis regions
- Greater flexibility in conducting centralized crisis action planning
- Increased sharing and collaboration of critical Intelligence, Surveillance and Reconnaissance (ISR) assets
- Increased availability and integration of joint assets in providing joint fires and joint fire support

By reflecting on past conflicts involving joint air operations, comparisons can be drawn to highlight the concept of capabilities a sea based AOC would bring to the table in future conflicts. For example, Operations such as El Dorado Canyon and Urgent Fury provide enduring lessons in joint Missions Other than War (MOOTW). Farther up the scale, Operation Enduring Freedom provides a foundation to discuss sea based operations. Overall, analysis of the sea based AOC should continuously be tied to the guidance given in the current National Military Strategy (NMS) which directs the military to strive towards increased integration, "...to provide the President a wider range of military options to discourage aggression..."¹⁶

In April 1986, Naval, Marine and Air Force tactical aircraft conducted air strikes into Libya, named Operation El Dorado Canyon, in response to Khadaffi's terrorist bombing of U.S. servicemen in Germany. Winnefeld and Johnson's account of the operation does not cite centralized planning as a cornerstone to success in this early demonstration of joint air power. Instead, they argue that situations might still exist "...such as well-planned, one time strikes...in which unity of air command or control is not needed to achieve unity of effort."¹⁷ They propose that although the high level of coordination between the two separate planning staffs, U.S. Air Forces in Europe (USCINCEUR) and Commander Sixth Fleet (COMSIXTHFLT), resulted in a highly successful operation, their forces assigned might not have been truly tested since their operation worked out as planned.¹⁸

Arguably, the El Dorado strikes of tomorrow will not be as compliant as Libya in 1986. Today's forces may have as little as a few days to accomplish the same objective against considerably more dangerous air defense systems. Of course, these types of operations could be planned effectively ashore at a regional headquarters; however situations do arise that may

prevent their participation. For example, in 1986, up until 48 hours prior to the commencement of operations, planners were not sure if the United Kingdom would grant permission for Air Force aircraft based in England to participate. Clearly, an alternative option merits discussion.

Using the aforementioned criteria, the sea based AOC would increase the response options available to the commander in several different ways. With respect to planning and execution, the sea based AOC could serve as a backup to the regional AOC or take the lead and plan operations from the beginning. Likewise, naval forces assigned to the CSG or ESG may be employed as a supporting effort to the Air Force or take the lead and assume the main effort. In any of the above options, integration and availability of service assets would be assured by the centralized but collaborative planning tools available through TBMCS. Additionally, inherent within the TBMCS network, national or service oriented ISR products would be distributed to all components near simultaneously, without the delays characteristic in “stovepipe” legacy systems. Consequently, with the appropriate level of intelligence and the ability to produce air command and control products (air tasking order (ATO), airspace control order (ACO), special instructions (SPINS) and air defense plan), the afloat staff can conduct joint crisis action planning while enroute, reaching back to the regional AOC as needed for requesting required capabilities. One plausible scenario might be that the CSG may not have to wait to be within range of the AOR to launch strikes. Instead, the JTF commander could request and plan for inorganic capabilities to support long range strikes. Additionally, unlike the 1986 strike, which relied on geographic separation for deconfliction of forces, the ATO would permit a synergistic attack plan to execute the air battle.

Beyond strikes and raids, the foreseeable future also likely poses requirements for forcible entry operations. According to joint doctrine, “To be credible both as a deterrent and a warfighting option, for policy enforcement, U.S. armed forces must be capable of deploying, and if necessary, fight to gain access to geographical areas controlled by hostile forces.”¹⁹ Forcible entry may be conducted either by air assault, airborne assault or amphibious assault and in 1983, during Operation Urgent Fury, military forces executed all three elements.

A violent coup in Grenada in 1983 and the presence of 600 American students on the island prompted concerns of another Iran hostage crisis. The Reagan administration authorized planning for Urgent Fury on 13 October 1983, but subsequently stepped up its planned execution date due to the attack of the Marine barracks in Beirut. 22nd MEU aboard USS Guam had received notification of possible non-combatant evacuation operations on 20 October with D-day scheduled for the 25th. On D-Day, Army and Marine troops converged on Grenada supported by naval surface and Air Forces and Air Force transport aircraft. Though successful in achieving its objectives, lack of both intelligence and planning time resulted in undue friction in executing the mission.²⁰

Today, the Navy/Marine Corps team regularly practices forcible entry operations as well as non-combatant evacuation. An ESG, with the Marine expeditionary unit embarked and attached naval surface fire support, routinely conducts forcible entry operations on a limited scale. When operating with a CSG, the composite force, known as an Expeditionary Strike Force (ESF), and its complement of Marine tactical air assets and fire support from surface navy cruisers and destroyers can conduct larger operations by leveraging the air power of the carrier air wing in defending the force and providing direct support to Marines on the ground. Likewise, further increases in scale and depth of forcible entry operations can be greatly

enhanced when planned at the joint operational level by an ESG or CSG employing a sea based AOC.

Tomorrow's next Urgent Fury-type operations will undoubtedly face similar constraints in timing and adequate intelligence. The same increase in response options applies here as in the El Dorado Canyon operation with the addition of the ability to increase the size of the attacking force rapidly by employing inorganic transport assets to transport more Marine elements or the newly formed brigade sized Army Units of Action. Here again, the JTF commander may request capabilities, now possible by the recent Army and Air Force expeditionary reorganization, but more importantly, the options become more viable given the addition of mobility and ISR assets that can be requested and planned for via the AOC. For example, Air Force ISR assets, such as JSTARS, more effectively support land forces than naval reconnaissance platforms.

Operation Enduring Freedom provides a recent example from which to draw comparison to the sea based concept of capabilities. In early October 2001, the combination of Air Force long range bombers, Navy firepower and Marine ground troops has been referred to by some as the conventional triad for the 21st century.²¹ The aircraft carriers USS Carl Vinson and USS Enterprise and their associated surface ships operating with amphibious assault ships USS Peleliu and USS Bataan with their respective MEUs conducted the initial air and tomahawk strikes supported by long range Air Force bombers from Diego Garcia. Other than the bombers however, Air Force assets remained on the fringes of the operation due to lack of secure bases near the area of operations.²² Executing nearly 75 percent of the sorties between October and January, the notional sea based concept emerged successfully from its first major combat test.²³

Throughout the operation, the extensive JAOC in Prince Sulman Air Base successfully provided the air command and control. While a sea based AOC could never reasonably exceed the capabilities of a mature, land based AOC in executing extended major operations, the sea based AOC still provides the JFC/CJTF additional options with considerable operational impact. Similar to the initial air strikes executed from October to January, the afloat AOC can plan and execute limited air operations in the absence of a regional AOC or when political sensitivities prevent its contribution. In 2001, military planners engaged in extensive negotiations with Saudi Arabia to secure their consent to use air assets based in Saudi Arabia in the conflict.²⁴ Another scenario utilizes the sea based AOC to conduct strikes and forcible entry operations to seize airfields and forward operating bases for a subsequent shift of duties ashore. Employed either as an initial main effort, supporting effort or redundant planning cell, the afloat AOC provided the JFC greater flexibility in executing the mission.

Finally, the most critical benefit of the sea based AOC capability lies in its potential contribution to Theater Ballistic Missile Defense. Given the proximity to Iran, Pakistan and India, future military operations such as Enduring Freedom may never be executed in a region where the strategic and operational risk from theatre missiles dominates the battlefield environment. Joint doctrine states, “JTMD (Joint Theatre Missile Defense) systems should possess the capability for rapid, global deployability and intra theatre mobility.”²⁵

With respect to integrating ISR assets, the AOC and TBMCS may provide the necessary real time data link that disseminates theatre missile targets across the joint force and tracks it through engagement. The range at which ballistic and theatre cruise missiles can operate

place a premium on air and sea based assets to surveil the battlespace continuously to detect a target.

Today, Aegis Class cruisers and destroyers deployed with CSG/ESGs, represent the leading edge of TBMD. Given projected future capabilities for surveillance, detection and engagement, the sea based AOC provides the best method to control a battlespace that deconflicts air strikes, cruise missile strikes, area air defense and theatre missile defense. Notionally, an Aegis ship may detect the track and pass it to the various potential intercept options throughout all phases of flight such as the Terminal High Altitude Area Defense system, Patriot Advance Capability 3 missile system, Airborne Laser, Kinetic Energy or SM-3. The Aegis system and SM-3 missile provide a deployable solution to the theatre ballistic detect to engage sequence, further amplifying the requirements for a sea based AOC.

A Proposed Framework for Organization

The organization of the afloat AOC should incorporate the concepts of collaborative and distributed planning used by the Air Force. First, a core staff manned by operators and planners should be permanently headquartered with the regional AOC or as a planning cell within the regional Standing Joint Force Headquarters (SJFQ). They should be trained and certified in accordance with current Air Force JFACC curriculum. The Navy is currently pursuing this among their own personnel and this should facilitate greater cooperation and understanding between Air Force and naval planners.²⁶ The staff would necessarily include representatives from all services assigned to permanent billets within the organization vice filling liaison positions. This increases their visibility and cross-pollination to the various departments. Eventually, this may lead to the AOC being an organization subordinate to the JFC, rather than to the Air Force component commander.

Secondly, an identically trained group of planners and operators should be assigned within the strike planning cell resident in CSG/ESG staffs. Upon commencement of contingency operations, this permanent afloat staff would conduct the initial planning and execution of the mission. Should the scope of operations demand additional resources or personnel, the afloat staff could be quickly augmented as required by the core group assigned to the regional AOC or SJFHQ. Driving towards both an afloat and ashore planning staff increases the available pool of specially trained operators and planners that may be assigned to Navy specific commands or even fill permanent billets in Air Force AOCs or supporting commands.

The sea based AOC concept of operations would provide the JFC or JTF the same products as an AOC. Ideally, given the appropriate collaborative planning systems, the AOC afloat would perform not only the JFACC duties but also ACA and AADC duties as well. Typically, air defense is the responsibility of the commanding officer of the cruiser, an O-6 command, and he may retain this duty or pass it to the AOC for larger operations. Similarly, the carrier air wing staff or the tactical control squadron assigned to the MEU normally function as the air space control authority; however they may also be given the option to pass it up to the AOC for coordination. These products already exist in some form within the Navy (i.e. Operational Tasking Messages) but would have to be adapted to joint language and format. Should the AOC issue all the required products, the above mentioned staffs should still maintain proficiency as a back up.

Incorporating the above organizational recommendations, the AOC capable CSG or ESG would be seen as a potent operational force rather than a tactical force with possible operational impact. As always, the CSG/ESG would normally operate under the operational control of the regional combatant commander and respective fleet commander; however, they

may be assigned tactically as an asset subordinate to a joint task force or assume duties as CJTF subordinate to a JFC. As a composite force, the ESF, with a sea based AOC capability would be the most versatile force in the world, capable of employing forces to conduct air and amphibious assault missions from the sea. Most countries still have difficulty locating our strike groups, and the employment of such a capable strike force may have a deterring effect on the adversary.

Conclusion

The U.S. Navy should pursue a sea based AOC capability as an operationally significant concept that greatly enhances the Navy's position in joint operations. Achieving this capability would posture naval forces to more closely fulfill the requirement mandated by the National Military Strategy to conduct military operations that dominate the full spectrum of conflict. Though previously limited by technological constraints, undeniable trends across military transformation efforts point to its future relevance and application to the Joint Force Commander. For example, the Air Force drive towards netted AOC architecture and reduced manning requirements mark the first steps that may lead to further improvements and eventual shipboard application.

Joint doctrine specifies the required capabilities of the JFC to deploy from the sea or ashore and to support command and control transition between the two domains in order to achieve freedom of action in joint operations. Additionally, full spectrum dominance demands a scaleable force, easily tailored to varying expeditionary missions. With respect to air power, this means that providing senior liaison officers to the regional AOC will not suffice. A joint staff that shares permanent billets across the services better serves the

doctrinal requirements for staff composition. Furthermore, the current Navy efforts to integrate fully in regional AOCs, will eventually lead to a growing level of experienced air planners that could shape the operations of an afloat AOC.

The uncertainty of future conflicts and the growing abilities of our adversaries reinforce the need to harness the operational significance of an afloat AOC. In all manner of conflict, from MOOTW to major operations, this unique capability provides the JFC greater flexibility to respond to contingencies on short notice with an integrated, more lethal joint force. More importantly, should the proliferation of theatre ballistic missile technology worsen, an AOC capable naval strike group most likely possesses the closest solution to this dangerous threat. Finally, rather than redefine naval command and control of air operations as simply an enabler to the JFACC, the Navy should expand this definition to encompass a wider more relevant purpose, to provide flexible joint airpower from the sea in support of the Joint Force Commander.

Endnotes

¹ Commander Second Fleet, "2004 Naval Command and Control of Air Operations," naval message dtg 082135Z November 2004.

² Ibid.

³ Steve Callicut and Larry McKee, "Air Force Takes Lead in Net-Centric Operations," National defense, 88(Arlington:2004):34.

⁴ Todd Fleming, "OPS Center Supports Air War," The Officer 75(November 1999):60.

⁵ William B. Scott, "Airborne Ops Center Smooths Deployments," Aviation Week & Space Technology 151(October 1999):44.

⁶ William B. Scott, "Experimental Center Nails Time-Critical targets," Aviation Week & Space technology 153 (October 2000): 70.

⁷ David A. Fulghum, "A Complex Vision; U.S. Plans Common Air Picture to Share Among Service and with Allies," Aviation Week & Space technology 160(March, 2004): 58.

⁸ Callicut and McKee.

⁹ Chairman Joint Chiefs of Staff, Joint Pub 3-0: Doctrine for Joint Operations (Washington D.C.: 2001), IV-18.

¹⁰ Chairman Joint Chiefs of Staff, Joint Pub 3-56.1: Command and Control for Joint Air Operations (Washington D.C.:1994), II-8.

¹¹ Ibid.

¹² Ibid., II-9.

¹³ Chairman Joint Chiefs of Staff, Joint Pub 3-01: Doctrine for Countering Air and Missile Threats (Washington D.C.: 1999), II-2.

¹⁴ Chairman Joint Chiefs of Staff, Joint Pub 3-56.1: Command and Control for Joint Air Operations (Washington D.C.:1994), II-8.

¹⁵ Stephen O Fought, "The Tale of the C/JFACC: A Long and Winding Road," Air & Space Power Journal, 18(Maxwell AFB: 2004):18.

¹⁶ Chairman Joint Chiefs of staff, National Military Strategy, (Washington D.C.:2004), 21.

¹⁷ Dana J. Johnson and James A. Winnefeld, Joint Air Operations: Pursuit of Unity in Command and Control 1942-1991, (Annapolis: Naval Institute Press, 1993), 95.

¹⁸ Ibid., p.94.

¹⁹ Chairman Joint Chiefs of Staff, Joint Pub 3-18: Doctrine for Forcible Entry Operations (Washington D.C.:2001),vii.

²⁰ Otto Kreisher, "Operation Urgent Fury-Grenda," Leatherneck, 86(Quantico:2003):28.

²¹ John Mazach, "The 21st Century Triad," Seapower, 45(Washington:2002):51.

²² John Terino, "Sea Basing ' Preferred method' for Operations, official says", Aerospace Daily & Defense Report 21 (Washington D.C.:2002):7.

²³ Ibid.

²⁴ <http://www.globalsecurity.org/military/facility/princesultan.htm>.

²⁵ Chairman, Joint Chiefs of Staff, Joint Pub 3-01.4: Doctrine for Joint Theatre Missile Defense (Washington D.C.:1996), I-1-I-2.

²⁶ Commander Second Fleet message dtg 082135Z November 2004.

Selected Bibliography

Books

Johnson, Dana J. and James A. Winnefeld. Joint Air Operations: Pursuit of Unity in Command and Control 1942-1991. Annapolis: Naval Institute Press, 1993.

Joint Publications

U.S. Joint Chiefs of Staff. Joint Pub 3-0: Doctrine for Joint Operations. Washington D.C.: 2001.

U.S. Joint Chiefs of Staff. Joint Pub 3-56.1: Command and Control for Joint Air Operations. Washington D.C.:1994.

U.S. Joint Chiefs of Staff. Joint Pub 3-01: Doctrine for Countering Air and Missile Threats. Washington D.C.: 1999.

U.S. Joint Chiefs of Staff. Joint Pub 3-18: Doctrine for Forcible Entry Operations. Washington D.C.:2001.

U.S. Joint Chiefs of Staff. Joint Pub 3-01.4: Doctrine for Joint Theatre Missile Defense. Washington D.C.:1996.

Periodicals

Callicut, Steve and Larry McKee. "Air Force Takes Lead in Net-Centric Operations." National Defense, 88(Arlington:2004):34.

Fleming, Todd. "OPS Center Supports Air War." The Officer 75(November 1999):60.

Fought, Stephen O. "The Tale of the C/JFACC: A Long and Winding Road." Air & Space Power Journal, 18(Maxwell AFB: 2004):18.

Fulghum, David A. "A Complex Vision; U.S. Plans Common Air Picture to Share Among Service and with Allies." Aviation Week & Space technology 160(March, 2004): 58.

Kreisher, Otto. "Operation Urgent Fury-Grenda." Leatherneck, 86(Quantico:2003):28.

Mazach, John. "The 21st Century Triad." Seapower, 45(Washington:2002):51.

Scott, William B. "Airborne Ops Center Smooths Deployments." Aviation Week & Space Technology 151(October 1999):44.

Scott, William B. "Experimental Center Nails Time-Critical targets." Aviation Week & Space technology 153 (October 2000): 70.

Terino, John. "Sea Basing 'Preferred method' for Operations, official says." Aerospace Daily & Defense Report 21 (Washington D.C.:2002):7.

Internet Sources

Pike, John. "Prince Sultan Air Base, Al Kharj Saudi Arabia." August 28, 2003.
<http://www.globalsecurity.org/military/facility/prince-sultan.htm>. [13 February 2005].

Other

Chairman Joint Chiefs of Staff. National Military Strategy. Washington D.C.:2004.

Commander, Second Fleet. "2004 Naval Command and Control of Air Operations," Naval message dtg 082135Z November 2004.